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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/060,865	01/29/2002	George P. Merrill	10559-738001 / P13587	6908
20985	7590	09/10/2004	EXAMINER	
FISH & RICHARDSON, PC 12390 EL CAMINO REAL SAN DIEGO, CA 92130-2081			PEIKARI, BEHZAD	
			ART UNIT	PAPER NUMBER
			2186	8

DATE MAILED: 09/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/060,865

**Applicant(s)**

MERRILL ET AL.

**Examiner**

B. James Peikari

**Art Unit**

2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date   .
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. The abstract is objected to -- Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-10, 17-29, 31-33 and 38-40 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Parker, et al., "Hardware/Software Tradeoffs in a Variable Word Width, Variable Queue Length Buffer Memory".

Parker et al. teach a system for determining, configuring and adjusting a number of queue parameters including queue length (i.e., "depth") and word width (i.e., "queue entry size"), and utilizes queue status flags including full (F) and empty (E), and queue select lines to select from a number of queues, end of queue and start of queue indicators, and determining a next access (i.e., read or write) address in the queue to operate upon via the queue selection circuitry (i.e., pointer). Note also the teach of operation with disk memory (column 2, page 159).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 11-15 and 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parker et al., in view of Todd et al., U.S. 6,359,901.

Parker et al. teach the invention as claimed, but fails to mention the use of a slave processor. As written, the slave processor of the claims does not appear to have any particular effect on the system. It is merely connected.

In any case, the use of slave processors was well known, and Meto et al. taught the use of such a slave processor (e.g., processor 60, in the slave station) in a system that included the use of queues (e.g., column 4, line 65).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a slave processor such as that of Meto et al. into the Parker et al. system, since (1) slave processors, in addition to the host processors, formed a multiprocessor system, which was generally more efficient than the use of several equivalent uniprocessor systems, and (2) Meto et al. was specifically designed for use with queues, as noted above.

7. Claims 16 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parker et al., in view of Todd et al., further in view of Kreifels, EP 0 342 107 A2.

As for the additional features of indicating nearly full and nearly empty queue conditions, this was not taught by the combination above. However, this feature was explicitly taught by Kreifels.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the additional features of indicating nearly full and nearly empty queue conditions of the Kreifels system into the Parker et al./Todd et al. combination disclosed above since this would provide a better and more efficient indication of the system of how to select and/or manage the queues in the Parker et al. disclosure by a predictive indication of which queues were about to fill up or get emptied.

***Allowable Subject Matter***

8. While the does appear to be allowable subject matter in applicant's disclosure, such features have not been incorporated into the present claims. In this regard, applicant is welcome to contact the examiner at the telephone number provided below.

***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Peikari whose telephone number is (703) 305-3824. The examiner is generally available between 8:00 am and 9:30 pm, EST, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim, can be reached at (703) 305-3821.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

or faxed to:

(703) 746-7239 (Official communications)

or:

(703) 746-7240 (for Informal or Draft communications)

Application/Control Number: 10/060,865

Page 6

Art Unit: 2186

or:

(703) 746-7238 (for After-Final communications)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA., Sixth Floor (Receptionist).



B. James Peikari  
Primary Examiner  
Art Unit 2186

9/7/04